QC-ABSTRACT

Name of Work:- Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sl No.	Item	Quantity As Per BOQ	Required No's of tests	Actual No's of tests	Tests
1	PCC 1:3:6	153.41 Cum	1	1	Cement
					Sand, Aggregates
2	Steel	9.62 Tonne	1	1	-
3	M15	61.96 Cum	5	5	Concrete Cube Compressive Strength
4	M20	142.48 Cum	6	6	Concrete Cube Compressive Strength
5	M20	91.88 Cum	5	5	Concrete Cube Compressive Strength
6	100mm Slab	679.54 sqm	1	1	Compressive strength
7	250mm Slab	7.50 sqm	1	1	Compressive strength
8	Brick	8 No's	1	1	-
9	Railings	35.40 Sqm	1	1	-
10	WMM	166.20 Cum			-
	Gradation		1	1	
	Aggregate Impact Value		1	1	

	Shape Test		1	1	
	Atterberg Limit		1	1	

Cubes	0-5 m^3	1set
	6-15 m^3	2set
	16-30 m^3	3set
	31-50 m^3	4 set

CIVIL QUALITY CONSULTANTS & ENGINEERS

Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date: 10.02.2020

TEST REPORT

CLIENT	:	**Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
AGENCY	:	**Executive Engineer,** KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
SAMPLE ID	:	Cement (OPC 53 Grade Birla Cement)
DATE O MANUFACTURE	:	January2020
DATE OF TESTING	:	08.02.2020 to 10.02.2020
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part -5)	155 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	425 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	28.50 %	-

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 10.02.202)

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency : **Executive Engineer,** KRIDL, Bangalore.
Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 10.02.2020

Material : Sand Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	71	7.10	7.10	92.9	90-100
2.36	132	13.20	20.30	79.7	75-100
1.18	141	14.10	34.40	65.6	55-90
600 Micron	252	25.20	59.60	40.4	35-59
300 Micron	174	17.40	77.00	23.0	8-30
150 Micron	163	16.30	93.30	6.7	0-10

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Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 10.02.202)

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency : **Executive Engineer,** KRIDL, Bangalore.
Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony an l surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 10.02.2020
Material : 40mm Aggregates

Total Wt. of Aggregates in gms **1500(**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Li nits
80	0	0	0	100	100
40	185	1.23	1.23	98.77	95-10)
20	8352	55.68	56.91	43.09	30-7(
10	3414	22.76	79.67	20.33	10-3[
4.75	2425	16.17	95.84	4.16	0-5

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BBMP, Bangalore - 97

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 10.02.2020

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency : **Executive Engineer,** KRIDL, Bangalore.
Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 10.02.2020

Material : 20mm Aggregates

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	152	3.0	3.0	97.0	95-100
10	2635	52.7	55.7	44.3	25-55
4.75	1965	39.3	95.0	5.0	0-10

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 10.02.202)

TEST REPORT ON FINE AGGREGATES (SAND)
IS 1542-1992

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 10.02.2020

Material : Plastering Sand Total wt. of aggregates in gms = **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits as per IS 1542-1992
10	0	0	0	100	100
4.75	18	1.80	1.80	98.2	95-100
2.36	14	1.40	3.20	96.8	95-100
1.18	35	3.50	6.70	93.3	90-100
600 Micron	72	7.20	13.90	86.1	80-100
300 Micron	245	24.50	38.40	61.6	20-65
150 Micron	511	51.10	89.50	10.5	0-15

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 10.02.202)

TEST REPORT ON FINE AGGREGATES (SAND)
IS 2116-1980

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 10.02.2020

Material : Masonry Sand Total wt. of aggregates in gms = **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits as per IS 2116-1980
4.75	0	0.00	0.00	100.0	100
2.36	24	2.40	2.40	97.6	90-100
1.18	14	1.40	3.80	96.2	70-100
600 Micron	43	4.30	8.10	91.9	40-100
300 Micron	385	38.50	46.60	53.4	5-.70
150 Micron	425	42.50	89.10	10.9	0-15

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date: 11.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CEMENT MORTAR CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Contractor : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Mortar for Plastering

Size of cubes : 50mmx50mmx50mm

Cross Sectional Area : 2500 mm^2

Technical Reference : IS: 2250-1981

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	12.02.2020	11.02.2020	526.000	9.8	3.92
2	12.02.2020	11.02.2020	0.524	10.3	4.12
3	12.02.2020	11.02.2020	0.531	10.8	4.32

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date: 12.02.2020

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of Work :

Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample Identification : 8mm,10mm,12mm,16mm Fe 500 TMT Bars

Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)

Date of test : 12.02.2020

S.No	Brand	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
				0.20 % proof stress/ yield stress ($N/mm^{2)}$	Tensile strength ($N/mm^{2)}$	Elongation, percent on gauge length
1	Fe 500	8	0.39	537	548	13
2	Fe 500	10	0.62	551	562	13.5
3	Fe 500	12	0.89	565	574	14.5
4	Fe 500	16	1.58	579	585	15

Remarks:

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3. Any Query regarding the report must be reported within 30 days from the date of testing.

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20

Date: 12.02.202(

TEST REPORT

CLIENT	:	**Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
AGENCY	:	**Executive Engineer,** KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
SAMPLE ID	:	Bricks Test – Class 5.0
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the samples are as follows:

Sl. No	Description	Test method as per IS Codes	Result	Requirement as per IS 1077-1992 (Rev-5)
1	Compressive Strength Of Bricks	IS 3495-1992 (Part-1)	5.55 N/mm^2	Class designation 5.0
2	Water Absorption of Bricks	IS 3495-1992 (Part – 2)	9.30 %	Not more than 20 %
3	Efflorescence of Bricks	IS 3495-1992 (Part – 3)	Moderate	Up to 12.5 Class
4	Dimensional Analysis of Bricks (minimum Sampling is 20 Nos.)	IS 1077-1992 (Rev – 5)		
(a)	Measurement of Length in mm		3869 mm	(3800 ± 80 mm)
(b)	Measurement of Width in mm		1829 mm	(1800 ± 40 mm)
(c)	Measurement of Height in mm		1434 mm	(1400 ± 40 mm)

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 24.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Coping)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.02.2020	24.02.2020	8.132	263.5	11.71
2	17.02.2020	24.02.2020	8.141	258.5	11.49
3	17.02.2020	24.02.2020	8.152	274.2	12.19

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 16.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Coping)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.02.2020	16.03.2020	8.187	378.5	16.82
2	17.02.2020	16.03.2020	8.196	396.2	17.61
3	17.02.2020	16.03.2020	8.169	388.5	17.27

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 24.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Coping)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.02.2020	24.02.2020	8.112	251.6	11.18
2	17.02.2020	24.02.2020	8.125	262.3	11.66
3	17.02.2020	24.02.2020	8.141	247.5	11.00

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 16.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Coping)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.02.2020	16.03.2020	8.169	366.5	16.29
2	17.02.2020	16.03.2020	8.154	385.2	17.12
3	17.02.2020	16.03.2020	8.174	374.5	16.64

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 24.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Coping)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.02.2020	24.02.2020	8.133	285.6	12.69
2	17.02.2020	24.02.2020	8.140	265.5	11.80
3	17.02.2020	24.02.2020	8.128	274.2	12.19

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 16.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Coping)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.02.2020	16.03.2020	8.195	395.4	17.57
2	17.02.2020	16.03.2020	8.166	365.5	16.24
3	17.02.2020	16.03.2020	8.174	378.5	16.82

Note:

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Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 26.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (vent)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.02.2020	26.02.2020	8.106	258.6	11.49
2	19.02.2020	26.02.2020	8.115	262.3	11.66
3	19.02.2020	26.02.2020	8.136	251.9	11.20

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 18.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (vent)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.02.2020	18.03.2020	8.174	369.2	16.41
2	19.02.2020	18.03.2020	8.166	385.9	17.15
3	19.02.2020	18.03.2020	8.185	391.4	17.40

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 26.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	**: Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	**: Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (vent)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.02.2020	26.02.2020	8.132	265.6	11.80
2	19.02.2020	26.02.2020	8.141	285.6	12.69
3	19.02.2020	26.02.2020	8.122	274.5	12.20

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 18.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (vent)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.02.2020	18.03.2020	8.150	385.2	17.12
2	19.02.2020	18.03.2020	8.164	366.2	16.28
3	19.02.2020	18.03.2020	8.174	374.5	16.64

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 26.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (vent)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.02.2020	26.02.2020	8.122	296.5	13.18
2	19.02.2020	26.02.2020	8.106	278.5	12.38
3	19.02.2020	26.02.2020	8.141	285.4	12.68

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date 18.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (vent)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.02.2020	18.03.2020	0.184	388.5	17.27
2	19.02.2020	18.03.2020	8.162	362.5	16.11
3	19.02.2020	18.03.2020	8.157	374.9	16.66

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 29.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd.. Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain Raft)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	22.02.2020	29.02.2020	8.174	388.5	17.27
2	22.02.2020	29.02.2020	8.165	365.2	16.23
3	22.02.2020	29.02.2020	8.128	374.9	16.66

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 21.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd . Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain Raft)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	22.02.2020	21.03.2020	8.252	511.2	22.72
2	22.02.2020	21.03.2020	8.236	506.2	22.50
3	22.02.2020	21.03.2020	8.247	523.6	23.27

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 29.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain Raft)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	22.02.2020	29.02.2020	8.154	389.6	17.32
2	22.02.2020	29.02.2020	8.169	396.2	17.61
3	22.02.2020	29.02.2020	8.174	378.8	16.84

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 21.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd . Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalo .

Sample ID : Cement Concrete (Drain Raft)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	22.02.2020	21.03.2020	8.241	516.2	22.94
2	22.02.2020	21.03.2020	8.226	499.6	22.20
3	22.02.2020	21.03.2020	8.258	502.3	22.32

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 03.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd. Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain-Wall)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	03.02.2020	8.174	388.5	17.27
2	25.02.2020	03.02.2020	8.156	395.6	17.58
3	25.02.2020	03.02.2020	8.182	365.2	16.23

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 24.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd. Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain-Wall)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	24.03.2020	8.235	511.2	22.72
2	25.02.2020	24.03.2020	8.241	506.2	22.50
3	25.02.2020	24.03.2020	8.265	523.4	23.26

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 03.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain-Wall)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	03.02.2020	8.147	399.6	17.76
2	25.02.2020	03.02.2020	8.165	385.2	17.12
3	25.02.2020	03.02.2020	8.185	378.9	16.84

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ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 24.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	**: Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	**: Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Drain-Wall)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	24.03.2020	8.235	502.3	22.32
2	25.02.2020	24.03.2020	8.247	516.5	22.96
3	25.02.2020	24.03.2020	8.285	536.4	23.84

Note:

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 03.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain-Wall)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	03.02.2020	8.174	388.5	17.27
2	25.02.2020	03.02.2020	8.165	362.9	16.13
3	25.02.2020	03.02.2020	8.185	385.6	17.14

Note:

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For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

CIVIL QUALITY CONSULTANTS & ENGINEERS

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ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 24.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	**: Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	**: Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd . Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Drain-Wall)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	24.03.2020	8.235	502.3	22.32
2	25.02.2020	24.03.2020	8.245	514.3	22.86
3	25.02.2020	24.03.2020	8.265	532.6	23.67

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For CIVIL QUALITY CONSULTANTS & ENGINEERS

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Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20

03.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Drain-Wall)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	03.02.2020	8.158	378.5	16.82
2	25.02.2020	03.02.2020	8.174	385.6	17.14
3	25.02.2020	03.02.2020	8.169	365.9	16.26

Note:

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24.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd. Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Drain-Wall)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.02.2020	24.03.2020	8.235	498.3	22.15
2	25.02.2020	24.03.2020	8.252	485.3	21.57
3	25.02.2020	24.03.2020	8.269	506.2	22.50

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 02.03.20: 0

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalo:
Sample ID	: Cement Concrete (Road)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	02.03.2020	8.165	388.5	17.27
2	24.02.2020	02.03.2020	8.174	374.5	16.64
3	24.02.2020	02.03.2020	8.135	365.2	16.23

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20

23.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Road)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	23.02.2020	8.262	506.2	22.50
2	24.02.2020	23.02.2020	8.235	498.3	22.15
3	24.02.2020	23.02.2020	8.285	515.2	22.90

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Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Road)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	02.03.2020	8.154	378.5	16.82
2	24.02.2020	02.03.2020	8.174	395.6	17.58
3	24.02.2020	02.03.2020	8.196	365.8	16.26

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Road)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	23.02.2020	8.236	521.3	23.17
2	24.02.2020	23.02.2020	8.252	514.6	22.87
3	24.02.2020	23.02.2020	8.247	502.3	22.32

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Road)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	02.03.2020	8.166	396.2	17.61
2	24.02.2020	02.03.2020	8.174	378.5	16.82
3	24.02.2020	02.03.2020	8.185	385.2	17.12

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 23.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	**: Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	**: Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Road)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	23.02.2020	8.225	496.3	22.06
2	24.02.2020	23.02.2020	8.241	502.3	22.32
3	24.02.2020	23.02.2020	8.265	521.6	23.18

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20

02.03.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Road)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	02.03.2020	8.169	385.6	17.14
2	24.02.2020	02.03.2020	8.147	365.2	16.23
3	24.02.2020	02.03.2020	8.185	374.9	16.66

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23.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client	: **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	: **Executive Engineer,** KRIDL, Bangalore.
Name of the work	: Improvements to roads drains and other developmet works in Kempegowd Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Sample ID	: Cement Concrete (Road)
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	23.02.2020	8.236	506.2	22.50
2	24.02.2020	23.02.2020	8.241	525.3	23.35
3	24.02.2020	23.02.2020	8.228	514.7	22.88

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 02.03.20: 0

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowd. Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalor e.

Sample ID : Cement Concrete (Road)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	02.03.2020	8.166	395.6	17.58
2	24.02.2020	02.03.2020	8.181	369.5	16.42
3	24.02.2020	02.03.2020	8.139	374.5	16.64

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20

23.02.2020

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of the work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Sample ID : Cement Concrete (Road)

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	24.02.2020	23.02.2020	8.235	526.3	23.39
2	24.02.2020	23.02.2020	8.285	504.2	22.41
3	24.02.2020	23.02.2020	8.247	519.7	23.10

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date: 09.03.2020

PRECAST SLAB 100mm Thick(CORE) TEST REPORT

Client	:	**Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Contractor	:	**Executive Engineer,** KRIDL, Bangalore.
Name of Work	:	Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
No.of Sample Tested	:	03
Date of Testing	:	09.03.2020
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivaler t Cube Compressi e Strength (N/mm^2
1	50.00	81.00	0.368	2313.84	1.62	0.960	32.60	16.60	17.93	17.21	21.52
2	50.00	85.00	0.394	2360.74	1.70	0.960	33.50	17.06	18.43	17.69	22.11
3	50.00	89.00	0.418	2391.97	1.78	0.960	31.90	16.25	17.55	16.84	21.06

Note:

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Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date: 09.03.2020

PRECAST SLAB 250mm Thick(CORE) TEST REPORT

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Contractor : **Executive Engineer,** KRIDL, Bangalore.
Name of Work :
Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

No.of Sample Tested : 03
Date of Testing : 09.03.2020
Techinical Reference : IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete : M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivaler t Cube Compressi e Strength (N/mm^2
1	100.00	173.00	3.132	2305.08	1.73	0.960	135.60	17.27	18.65	17.90	22.38
2	100.00	178.00	3.296	2357.64	1.78	0.960	132.60	16.88	18.23	17.50	21.88
3	100.00	181.00	3.402	2393.13	1.81	0.960	133.90	17.05	18.41	17.68	22.10

Note:

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 13.03.2020

TEST REPORT ON STAINLESS STEEL HOLLOW PIPE (14th Gauge)

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Specimen Size : SS Hollow pipe 50mm Dia

PHYSICAL TEST

Sl.No	Description	Result
1	Thickness	2.10 mm
2	Inner Diameter	50.10 mm
3	Outer Diameter	54.40 mm
4	Weight / Meter	2.537 Kg

The Results relate only to the items tested

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 15.02.2020

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency : **Executive Engineer,** KRIDL, Bangalore.
Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 15.02.2020
Material Type : Wet Mix Macadam

Oven Dry.Wt 10000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	158	158	1.6	98.4	95-100
22.4	2352	2510	25.1	74.9	60-80
11.2	2252	4762	47.6	52.4	40-60
4.75	1524	6286	62.9	37.1	25-40
2.36	1296	7582	75.8	24.2	15-30
0.600	536	8118	81.2	18.8	8-22
0.075	1285	9403	94.0	6.0	0-8

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date: 15.02.2020

Aggregate Impact Value

IS: 2386 Part IV

Client	**Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	**Executive Engineer,** KRIDL, Bangalore.
Name of the Work	Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Type of Mix	Wet Mix macadam
Date of Testing	15.02.2020

Sl No.	Details	Trial No. 1	2	3	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	385	387	389	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	89	90	92	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	296	297	297	
4	Aggregate Impact value = percent fines $100^* (W_2/W_1)\%$	23.12	23.26	23.65	23.34

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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15.02.2020

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.
Agency	**Executive Engineer,** KRIDL, Bangalore.
Name of Work	Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Sample ID	WMM Layer
Date of Testing	15.02.2020

Result : Flakiness Index = **11.69%**

Elongation Index = **13.52%**

Result : Combined Flakiness & Elongation index 25.21%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

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Job No.: CQCE/BBMP/KRIDL/W.No.9/2019-20 Date : 15.02.2020

ATTERBERG LIMITS TEST FOR WMM
MORTH TABLE-400-11

Client : **Assistant Executive Engineer,** Vidyaranyapura sub Division, BBMP, Bangalore.

Agency : **Executive Engineer,** KRIDL, Bangalore.

Name of Work : Improvements to roads drains and other developmet works in Kempegowda Colony and surrounding area in ward no.9, Vidyaranyapura, BBMP, Bangalore.

Date of Testing : 15.02.2020

Material Type : Wet Mix Macadam

As per MORTH Table 400-13

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit	24.00	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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